DATA QUALITY HANDBOOK

Version 1.0

September 2002

Table of Contents

Page

Note: The ICD9 Codes (provided for each search are the appropriate coding for that particular range of Diagnoses) and not necessarily how the field site may be doing data entry coding. They should always confirm how the diagnosis is being coded and data entered at their particular site.

Overview of Data Quality

Introduction

Why data quality assessment?   In today's world there are ever increasing demands for data. Some of these demands are: Indian Health Service (IHS) demands, i.e., statistics regarding work load levels in the hospitals and clinics, numbers of people served, numbers of people that have Third Party Resources (information that drives resource allocation and management and facilitates planning of programs); ORYX requirements for accreditation; measurement of the Government Performance Result Act (GPRA) objectives; data to transmit into the states regarding immunizations and other requirements (each state has different requirements); and now demands are emerging for audits to comply with Medicare and Medicaid.

The driving demand for good data however, is generation of an accurate Health Summary sheet for better provision of care for patients. This would include past medical history, up-to-date immunizations, prevention measures and reminders for the due dates of those measures. Perhaps over time, with a health summary that has accurate up-to-date information that providers trust, attention paid to these preventive measures will decrease the incidence of chronic illness and the complications associated with such illness.

The previously mentioned demands are a few reasons for assessing the quality of data in the IHS Resource Patient Management System (RPMS). This manual is written with the hope that with the use of sample assessment forms and a full description of methods for assessment, it will be a valuable source of help in the on-going assessment of data quality and a catalyst for improvement.

Data quality assessment is accomplished **using eight basic steps** some of which will be discussed in later chapters. Below are four of the **basic steps** to look for:

1. Accuracy of data entry.
2. Completeness of data entry.
3. Timely entry of data.
4. Timely movement of data.

Chapter 1
Deciding What to Assess

Databases are simply too large to completely assess so you need to think of a database in "bite sized chunks". This is done using Q-Man to give you the number of entries in your database that pertain to the area or the "bite sized chunk" you want to assess. Use this number to decide what a statistically valid sample size will be.

Following are some examples of "bite sized chunks":

1. Women age 18 to 65 years who have had a pap smear.
2. Diabetic patients who have had an HbA1C.
3. Diabetic females who have had an HbA1C.
4. Women age 18 to 65 years who have had a mammogram.
5. Diabetic patients who have had an annual dental visit.
6. Patients who have had some sort of heart disease (Use ICD-9 Codes).
7. Patients who have had some form of cancer.
8. Diabetic patients with nephropathy.
9. Diabetic patients on dialysis.
10. Patients with past surgical history of colecystectomy.
11. Children age 0 to 5 years who have had a well child visit.
12. Children age 0 to 3 years with an immunization assessment.
13. Children visiting the Audiology Clinic.
14. Children age 3 to 6 years - height and weight assessment or annual dental visits.
15. Patients with visits to the Teen Clinic.
16. Patients seen by public health nurses.
17. Patient visits to the pharmacy.
18. Patients seen in Women's Health Clinic.
19. Patients seen in Diabetic Clinic.
20. Patients with visits to any clinic that has Third Party Resources.

These are only a few examples. For more examples of "bite sized chunks" used for assessment refer to the last of ORYX or GPRA indicators or to the annual Diabetes Audit.

As you work with the database you should get more ideas about the areas to look at. If you are not proficient using Q-Man, classes are given at Area RPMS Training Centers.

Next, determine the time frame in which the patient visits that you want to look at occurred. This can be a year of data or some other period of time. **Ensure that the period of time will provide enough data to get accurate and quality data.**

If you want to look at recent data, be sure to consult your data entry department to see how current their data entry is. Ask how often error reports are run and corrected. This will have an effect on the data that has been entered most recently. It is probably best to look at data at least two months old. Start there and count backward to six months or a year and use that as your time frame. Again, be sure the time frame contains enough data to get an adequate picture of the quality of the data. This will be dependent on how often the clinical event happens. An example of this would be pap smears. You might want to know if the annual pap smears done are

recorded properly in the RPMS. For example, older females sometime have a pap smear every two years and an annual mammography. Therefore you would want a time frame of two years instead of one. If you have questions about the standard of care for certain clinical practices you want to assess, ask some of the providers about the frequency of these events.

FOR A TARGETED POPULATION, PRINT A RANDOM SAMPLE OF THOSE PATIENT'S VISITS FOR A SPECIFIED TIMEFRAME.

Step 1 Example of saving the Diabetic Patient Population in Template-

What is the subject of your search? LIVING PATIENTS // **PATIENT**
Attribute of PATIENT: DX
Enter DX: **250.00-250.93**

SUBQUERY: Analysis of multiple DIAGNOSES
First condition of "DIAGNOSIS": **SINCE**
Exact date: **T-365**   (One year from Today's Date)
Next condition of "DIAGNOSIS": **Return**
Attribute of PATIENT: **Return**

***** Q-MAN OUTPUT OPTIONS *****

4 STORE results of a search in a FM search template

Enter the name of the SEARCH TEMPLATE: **DIABETIC PTS - ALL**
Are you adding 'DIABETICS PTS - ALL' as a new SORT TEMPLATE? No// **YES**

////////////////////

Step 2 What is the subject of your search? LIVING PATIENTS // **PATIENTS**

There are 200 entries in this cohort
Maximum sample size allowed is 50% of this total (419)

There are 2 ways to determine sample size =>

1   Sample a certain NUMBER of cohort members
2   Sample a certain PERCENT of cohort members

Your Choice (1-2): 1// 1

How many PATIENTS do you want in the sample: **114**

Collecting a random sample 114
What is the subject of your search? LIVING PATIENTS // **PATIENTS**
Attribute of PATIENT: **[DIABETIC PT – ALL** Enter name of Template Here

1   LIVING PATIENTS must be a member of the DIABETIC PTS-ALL cohort
2   LIVING PATIENTS must NOT be a member of the DIABETIC PTS-ALL cohort
3   Select a random sample of the DIABETIC PTS-ALL cohort
4   Count the number of entries in the DIABETIC PTS-ALL cohort

Your choice (1-4): 1// **3**
Counting cohort before sampling...

Attribute of LIVING PATIENTS: **VISIT**
SUBQUERY: Analysis of multiple VISITS
First condition of "VISIT": **DURING THE PERIOD**
Exact starting date: **1-1-99** =========➔Selected Visit Timeframe
Exact ending date: **12-31-99**
Next condition of "VISIT": **RETURN**
Attribute of LIVING PATIENTS: **RETURN**

***** Q-MAN OUTPUT OPTIONS *****

Select one of the following:

1   DISPLAY results on the screen
2   PRINT results on paper
3   COUNT 'hits'
4   STORE results of a search in a FM search template
5   SAVE search logic for future use
6   R-MAN special report generator
9   HELP
0   EXIT

Your choice: DISPLAY// **2 PRINT** results on paper

You have 2 options for listing VISITS =>

1   For each patient, list all VISITS which match your criteria
2   List all PATIENTS with VISITS meeting your criteria, but do not list the individual
    values of ea. VISIT

Your choice (1 or 2): 1// **1**
DEVICE: **ENTER DESIRED PRINTER #**

///////////////////////

PATIENTS (Alive)	PARKER NUMBER	VISIT
CUTE,WINIFRED	15585	JAN 11,1999
ADDI,SUE	7329	NOV 23,1999
ADDI,SUE	7329	NOV 23,1999
ADDI,SUE	7329	NOV 23,1999
ADDI,SUE	7329	APR 15,1999
GETAS,LOIS A.	6417	NOV 3,1999
GETAS,LOIS A.	6417	MAY 11,1999
GETAS,LOIS A.	6417	APR 29,1999
MERYSCEL,DENNIS	6916	MAY 13,1999

Step 3 How Many of the Diabetes Template Patients Did **Not Have** A Visit During the Specified Time Frame

What is the subject of your search? LIVING PATIENTS // **PATIENTS**
Attribute of PATIENT: **[DIABETIC PT – ALL** Enter name of Template Here

1   LIVING PATIENTS must be a member of the DIABETIC PTS-ALL cohort
2   LIVING PATIENTS must NOT be a member of the DIABETIC PTS-ALL cohort
3   Select a random sample of the DIABETIC PTS-ALL cohort
4   Count the number of entries in the DIABETIC PTS-ALL cohort

Your choice (1-4): 1// **3**

Counting cohort before sampling...

There are 200 entries in this cohort
Maximum sample size allowed is 50% of this total (419)
There are 2 ways to determine sample size =>

1   Sample a certain NUMBER of cohort members
2   Sample a certain PERCENT of cohort members

YOUR CHOICE (1-2): 1// 1

How many PATIENTS do you want in the sample: **114**
Collecting a random sample
114

Attribute of LIVING PATIENTS: **VISIT**
SUBQUERY: Analysis of multiple VISITS
First condition of "VISIT": **DURING THE PERIOD**
Exact starting date: **1-1-99** ========➔Selected Visit Timeframe
Exact ending date: **12-31-99**
Next condition of "VISIT": **NULL ======➔Did NOT have a visit**
Next condition of "VISIT": **RETURN**
Attribute of LIVING PATIENTS: **RETURN**

7

***** Q-MAN OUTPUT OPTIONS *****
Select one of the following:

1   DISPLAY results on the screen
2   PRINT results on paper
3   COUNT 'hits'
4   STORE results of a search in a FM search template
5   SAVE search logic for future use
6   R-MAN special report generator
9   HELP
0) EXIT

Your choice: DISPLAY// **2 PRINT** results on paper

You have 2 options for listing VISITS =>

1   For each patient, list all VISITS which match your criteria
2   List all PATIENTS with VISITS meeting your criteria, but do not list the individual
        values of each VISIT

Your choice (1 or 2): 1// **1**

DEVICE: **ENTER DESIRED PRINTER #**

////////////////////

REPORT EXAMPLE:

PATIENTS (Alive)	PARKER NUMBER	VISIT
BRUWN,DARLA	5707	-
KNUX,WANDA LEE	7834	-
JANKYNS,EDDIE	11395	-
GETAS,HARRY	11435	-
MULYNE,TRILBY D.	17072	-
HONTAR,JERRY	5723	-
MERTYN JR,AUGUST	5782	-
BYSHUP,THOMAS R	5994	-
HERPAR,RITHA	7228	-

Chapter 2
Determining Sample Size

It is **absolutely imperative** that you have an adequate sample size to reflect a true picture of the quality of the data. This will require the use of a statistically valid sample. There is often temptation to look at a few patients and think that you have enough information for the quality of data that you want. **Do not fall into that trap.** Data quality assessment is time and labor intensive. Therefore, getting a true picture of the quality of data is well worth the time and effort invested.

There are two steps to this process. First determine how many patients in the database fit into the "bite sized chunk" that you want to assess. For example: to assess up-to-date immunizations in 2 year olds, determine how many children in the data base are at least two years old, but not yet three years old. To do this, use a Q-man search. After entering the search criteria, use the option to "count the hits". This gives the exact number of children that meet the criteria. (See Chapter 3 – Selecting Patients for complete information).

The next step is to determine the number of patients that must be included in the assessment to have a statistically valid sample. Assessing the data on such patients during the selected time frame will provide a valid picture of the quality of data in the RPMS (at least for that "bite sized chunk").

There are several ways to determine a statistically valid sample size. You may use any of the following samples or use one of your own:

1. The Joint Commission on Accreditation of Health-Care Organizations formula for determining sample sizes"

    5% of the total occurrences (patients) or 30 which ever number is greater; or if the total number of occurrences in a quarter is less than 30, review 100% of the occurrences.

2. The next method requires several steps for calculating a sample size and will be discussed in this section followed by Table 1 on page 11.

    Steps For Calculating Sample Size

    Example: assume we are planning a simple random sample of hospital records from a pediatric clinic. We want to determine the number of children, ages of 2 - 27 months, who were fully vaccinated, as defined by their age. The clinic saw 1,000 children in this age group annually.

    Step 1 Guess/Anticipate the Proportion to Measure

    > **Guess/anticipate the proportion you are going to measure.** Use any available information to make a rough estimate of the number of children who were fully vaccinated. This is called the anticipated proportion.

Example: you might guess that 80 out of every 100 children seen have been vaccinated. Therefore, the anticipated proportion will be 0.8. Note: in the calculations you must always enter percentages as decimal numbers (for example, enter 0.6 for 60 percent).

You probably do not have good estimates of current coverage and that is why you are doing the survey! However, even approximate information is adequate. When in doubt, err toward 0.5 because estimates close to 0.5 require larger samples for a given margin of error than either larger or smaller coverage.

Step 2 Determine Acceptable Margin of Error

Determine the acceptable margin of error for your estimate, i.e., decide how close to the actual rate the estimate should be. For national goal monitoring, a reasonable margin of error is plus or minus 5 percentage points. We are expressing margins of error in terms of an absolute number for percentage points. For example, an overage estimated at 60 percent with an error of plus or minus 5 percentage points means that the actual coverage should be between 55 or 65 percent. Therefore, if your survey finds 82 percent, the actual population coverage should be between 77 or 87 percent.

The smaller the acceptable margin of error, the larger the sample size used in the survey will be. For national goal monitoring, margins of error of, say, 15 percentage points or greater are probably too wide to be of any use. You must also balance the need for precision against the costs involved in doing a very extensive survey.

Step 3 Selection of an Appropriate Effect

Select an appropriate design effect. When cluster sampling is used, respondents are not chosen completely or independently of the other responses in the same cluster. If children are more alike within a cluster than in the whole population, it will result in a larger sampling error than if the same children had been obtained through a simple random sample. Cluster sampling is beyond the scope of this manual, so use simple random sampling this will allow you to *skip STEP 3.*

Step 4 Calculation

Calculate the sample size using the formula:

Sample size = $\dfrac{4 \text{ x } \text{proportion } \text{x } (1\text{-proportion})}{\text{Margin of error x Margin of Error}}$

Example Using Formula:

Proportion = 0.8 (that is 80 percent)
Margin of error = 0.05 (+ or – 5 percentage points)
Sample size = $\dfrac{4 \text{ x } 0.8 \text{ x } (1\text{-}0.8)}{(0.05 \text{ x } 0.05)}$ = 256

So, the sample size is 256 children ages 0-27 months. That is, to obtain an estimate with a margin of error of plus or minus five percentage points (a 95 percent chance that the true rate falls within 75 and 85 percent), you should review 256 medical records.

3. The third method refers to Table 2 on the following pages . This method may be the easiest to use in the beginning.

Table 1: Sample Size Calculations			
Margins of Error	**Proportion**	**Margin of Error**	**Sample Size**
Estimates with a 1% Margin	0.9	0.01	3600
	0.8	0.01	6400
	0.7	0.01	8400
	0.6	0.01	9600
	0.5	0.01	10000
	0.4	0.01	9600
	0.3	0.01	8400
	0.2	0.01	6400
	0.1	0.01	3600
Estimates with a 5% Margin	0.9	0.05	144
	0.8	0.05	256
	0.7	0.05	336
	0.6	0.05	384
	0.5	0.05	400
	0.4	0.05	384
	0.3	0.05	336
	0.2	0.05	256
	0.1	0.05	144
Estimates with a 10% Margin	0.9	0.10	36
	0.8	0.10	64
	0.7	0.10	84
	0.6	0.10	96
	0.5	0.10	100
	0.4	0.10	96
	0.3	0.10	84
	0.2	0.10	64
	0.1	0.10	36
Estimates with a 15% Margin	0.9	0.15	16
	0.8	0.15	28
	0.7	0.15	37
	0.6	0.15	43
	0.5	0.15	44
	0.4	0.15	43
	0.3	0.15	37
	0.2	0.15	28
	0.1	0.15	16

Note: The sample size formula given above assumes a 95% confidence interval. Other levels of confidence can be selected (e.g., 90% or 99%). For ease of presentation and because 95% is often used, Table 1 uses this formula.

	Table 2:	**SAMPLE**			
		Population Size	**Sample Size***		
		200	114		
		300	200		
		400	200		
		500	200		
		600	210		
		700	220		
		800	230		
		900	238		
		1,000	244		
		1,500	266		
		2,000	278		
		2,500	286		
		3,000	291		
		3,500	295		
		4,000	299		
		5,000	303		
		7,000	308		
		10,000	313		
		*95% Confidence			
		30% Expected Maximum Error			

General Searches

BMI In 3-5 Year Olds

***** SEARCH CRITERIA *****

What is the subject of your search? LIVING PATIENTS //   LIVING PATIENTS

Subject of search: PATIENTS
ALIVE TODAY   [SER = .01]

Attribute of LIVING PATIENTS: AGE
Condition: BETWEEN,AGES (inclusive)
Start with (and include) AGE: 3
End with (and include) AGE: 5
Computing Search Efficiency Rating..........

Subject of search: PATIENTS
ALIVE TODAY   [SER = .01]
AGE BETWEEN,AGES (inclusive) 3 and 5   [SER = 99]

Flu Shots In Elders

***** SEARCH CRITERIA *****

What is the subject of your search? LIVING PATIENTS //   LIVING PATIENTS

Subject of search: PATIENTS
ALIVE TODAY   [SER = .01]

Attribute of LIVING PATIENTS: AGE
Condition: >
Age: 65
Computing Search Efficiency Rating.........

Subject of search: PATIENTS
ALIVE TODAY   [SER = .01]
AGE GREATER THAN 65   [SER = 4.56]

HBA1c In Diabetic Patients

***** SEARCH CRITERIA *****

Subject of search: PATIENTS
ALIVE TODAY   [SER = .01]

Attribute of LIVING PATIENTS: DX

Enter DX: 250.00   250.00   DIABETES UNCOMPL ADULT/NIDDM

Code Range(s) Selected So Far =>
1)   250.00

Enter ANOTHER DX: 250.93 250.93   DM W COMPL NOS/T-I/IDDM,UNCONT
COMPLICATION/COMORBIDITY

Code Range(s) Selected So Far =>

Code Range(s) Selected So Far =>
1) 250.00-250.93

UTD Immunizations In 2 Year Olds

***** SEARCH CRITERIA *****

What is the subject of your search? LIVING PATIENTS //   LIVING PATIENTS

Subject of search: PATIENTS
ALIVE TODAY   [SER = .01]

Attribute of LIVING PATIENTS: AGE
Condition: BE
1   BEFORE
2   BETWEEN,AGES (inclusive)

CHOOSE 1-2: 2

Start with (and include) AGE: 0
End with (and include) AGE: 2
Computing Search Efficiency Rating.........

Women's Health

***** SEARCH CRITERIA *****

What is the subject of your search? LIVING PATIENTS //   LIVING PATIENTS

Subject of search: PATIENTS
ALIVE TODAY   [SER = .01]

Attribute of LIVING PATIENTS: SEX
CHOOSE FROM:
M   MALE
F   FEMALE
Value: F FEMALE
Computing Search Efficiency Rating....................
Subject of search: PATIENTS
ALIVE TODAY   [SER = .01]
SEX: FEMALE   [SER = 1.17]

Attribute of LIVING PATIENTS: AGE
Condition: BETWEEN,AGES (inclusive)
Start with (and include) AGE: 18
End with (and include) AGE: 65
Computing Search Efficiency Rating.........

Subject of search: PATIENTS
ALIVE TODAY   [SER = .01]
SEX: FEMALE   [SER = 1.17]
AGE BETWEEN,AGES (inclusive) 18 and 65   [SER = .43]

Chapter 3
Selecting Patients

Introduction

Now that you have completed the preceding steps: a) decided what area of the database to assess; b) selected a time frame for the data to assess; and, c) selected the sample size, based on the number of patients in the area of assessment, it is now time to generate a list of patients that had visits within the time frame chosen.

For this part of the assessment process the Q-Man function in RPMS will be used. The following pages provide direction or examples of various Q-Man searches. Over time and with repeated use you should become well acquainted with the uses and capabilities of Q-Man and that it is a very useful tool with many applications for information retrieval. Additional training on Q-Man can be obtained from your Area RPMS Training Center.

The following pages contain templates for general searches. Templates for specific searches will be addressed in Chapter 10. It is **important** that these general search templates be used in the beginning. You need to include all patients that fit into the search criteria in your assessment. Then select a sample size from that larger group. You will also need to assess a general group to look for data **that has not been** entered on patients that meet the search criteria. This determines your data quality prior to doing a more specific search. **Remember that you are assessing the quality of your data in the RPMS, *NOT* how well you are meeting standards of care.**

Chapter 4
Chart Assessment

At this point you have completed these steps:

1. Decided what to assess.
2. Determined the sample size.
3. Selected the patients to be reviewed (this generates the list of medical records needed to conduct the assessment and also is the list that is submitted to the Health Information Management Department (HIMD)(Medical Records) requesting records for a specific day). Note: Most medical record departments require 48 to 72 hours notice when large numbers of medical records are needed.

Included in the next three pages are sample forms that may be used for conducting the assessment. After completing several assessments, you should get an idea for designing your own assessment forms. These forms are used to document accurate or incomplete data. The data in the medical record should match the data in the RPMS exactly. If the data does not match, there will be an entry error that is either an error of inaccuracy or an error of omission. You may use any symbol to document findings. Check marks, pluses, minuses, the number one for "yes and zero for "no" are common symbols used. Use the symbol that makes sense to you.

Data Quality Assessment Worksheet

	Immunizations		Information from the Med. Record							Information from the RPMS							Tabulation	
MR #	Clinic	D.O.S.	HBV	HIB	DTP	OPV	MMR	VAR	HEP A	HBV	HIB	DTP	OPV	MMR	VAR	HEP A	#Errors	Omitted

Comments: _____

Total: ____

Data Quality Assessment Worksheet

Measurements			Information from the Med. Record							Information from the RPMS							Tabulation	
MR #	Clinic	D.O.S.	B/P	TEMP	PULSE	RESP	HT	WT	LMP	B/P	TEMP	PULSE	RESP	HT	WT	LMP	#Errors	Omitted

Total: _____

Comments:

Generic Worksheet

Data Quality Assessment Worksheet

			Information from the Med. Record	Information from the RPMS	Tabulation	
MR #	Clinic	D.O.S.			#Errors	Omitted

Total: _____

Comments: _____

Chapter 5
RPMS Data Validation

You have now completed these steps:

1. Decided what to assess.
2. Determined a sample size
3. Selected the patients to be reviewed.
4. Set up chart assessment sheets and submitted the list of needed medical records.

The next step is to select a working area with ample space and a PC or dumb terminal to access the RPMS system.

In order to compare the data contained in the medical record with data entered into the RPMS, one menu option is needed. That option is "Display Data for a Specific Patient Visit". This option is the only one that shows all the data that has been entered for the corresponding PCC Encounter form for that specific date. So the two crucial items needed for the comparison is the patient's health record number and the date of the visit. After entering these two items, the visit will be displayed with all the data that has been entered. You will then be able to compare it to the medical record to look for inaccuracies and items that have been omitted. Remember, both are considered entry errors.

On the next page is a screen capture that shows the path to reach this menu option and how it will look on the computer or terminal screen.

Example #1

Display Data for a Specific Patient Visit-
Menu Path: PCC, MGR, PCC, DSP

```
        *****************************
         **  PCC Data Entry Module  **
        *****************************
```

Version 2.0

ENT   Enter/Modify/Append PCC Data…
DSP   Display Data for a Specific Patient Visit
PEF   Print a PCC Visit in Encounter Form format
UPD   Update Patient Related/Non Visit Data…
DEU   Data Entry Utilities…
GHS   Generate Health Summary
BHS   Browse Health Summary

Select Patient Care Data Entry Menu Option: **DSP** Display Data for a Specific Patient Visit

Select Patient Name: **PAH78910**   Hall, B.J.F 03-01-1949 450844584 PAH 78910
Enter VISIT date: **3/2/01**   (MAR 02, 2001)

Patient Name: HALL,B.J.
Chart #:   7890
Date of Birth: Mar 01, 1949
Sex: F

_____VISIT FILE_____
VISIT/ADMIT DATE&TIME: MAR 02, 2001@08:00
DATE VISIT CREATED: MAR 02, 2001
TYPE: IHS
THIRD PARTY BILLED: EXISTING CLAIM MODIFIED
PATIENT NAME: HALL, B.J.
LOC. OF ENCOUNTER: PARKER HOSPITAL
SERVICE CATEGORY: AMBULATORY
CLINIC: GENERAL
DEPENDENT ENTRY COUNT: 18
DATE LAST MODIFIED: MAR 05, 2001
WALK IN/APPT: WALK IN
CREATED BY USER: ADAM,ADAM
USER LAST UPDATE: ADAM,ADAM
+   Enter ?? for more actions

Next Screen -   Previous Screen   Q Quite

22

****IF NO VISIT SELECTED IS DISPLAYED – GO ON TO Example 2*****

Example #2

Display /Find all Visits for a Specific Patient-
Menu Path: PCC, QMAN, SEARCH

What is the subject of your search? LIVING PATIENTS//**HALL, B.J.**   03-01-1949
450844584 PAH 78910

Attribute of PATIENT: **VISIT**

SUBQUERY: Analysis of multiple VISITS

First condition of "VISIT": **DURING** THE PERIOD
Exact starting date: **1-1-01**   (JAN 01, 2001)   Enter Desired Date Range
Exact ending date: **3-12-01**   (DEC 31, 2001)

Next condition of "VISIT"   **RETURN KEY**

Attribute of PATIENT: **RETURN KEY**

          *****Q-MAN OUTPUT OPTIONS*****

Select one of the following:

1. **DISPLAY results on the screen**
2. PRINT results on paper
3. COUNT "hits"
4. STORE results of a search in a FM search template
5. SAVE search logic for future use
6. R-MAN special report generator
7. HELP
0. EXIT

Your choice: DISPLAY//**RETURN KEY**

REPORT EXAMPLE:

PATIENTS	PARKER	VISIT
8	NUMBER	
HALL,B.J.*	78910	MAR 2, 2001
HALL,B.J.*	78910	MAR 4, 2001
Total: 2		

Chapter 6
Tabulating Data Findings

You have completed these steps:

1. Decided what to assess.
2. Determined a sample size
3. Selected the patients to be reviewed.
4. Set up the chart assessment sheets and submitted a list of needed medical records.
5. Used the RPMS to compare the data entered with the PCC Encounter form to look for inaccuracies and omissions. If the data and the medical record match exactly, that can also be entered on your work sheet. You will need to keep track of how many visits you have reviewed.

The error rate is calculated by dividing the number of errors (inaccurate entries & omissions) by the number of visits that you looked at:

> Entry Errors (inaccurate entries & omissions)
> Total number of PCC visits reviewed.

Example:

> $\dfrac{21 \text{ Errors}}{1826 \text{ visits}}$ = 1.2%

5% or less is an acceptable error rate. If the error rate is higher than 5% the entire data process needs to be assessed. This will be discussed in Chapter 7.

Chapter 7
Reporting Assessment Findings

You have now completed these steps:

1. Decided what to assess.
2. Determined a sample size
3. Selected the patients to be reviewed.
4. Set up the chart assessment sheets and submitted a list of needed medical records to the HIMD (Medical Records).
5. Used the RPMS to compare the data entered with the PCC Encounter Record to look for inaccuracies and omissions. If the data and the medical record match exactly, that can also be entered on your work sheet. You will need to keep track of how many visits you have reviewed.

Reports documenting findings come in two parts. The first part of the report is a narrative summary. This summary should contain information such as how many patients were assessed. How many visits that group of patients had within a specific time period. Be sure to include the specific time period outlining the range of dates. This is important when looking at the data process. From time to time events going on during that time period in the facility affects the quality of data. Shortages of personnel, time of year, new personnel, hardware issues, also affect the quality of data. When findings are analyzed, consider all the factors to explain some of the variances found.

Other items to be addressed in the narrative summary shall be included in the section labeled "Findings". The findings address quality of medical records, legibility of the records, timely processing of completed PCC Encounter Records, filing sequentially by date of PCC Encounter Records, care documented consistently in the proper place and proper use of the PCC Encounter Record in general. Other findings will include systems or process problems as well as individual performance problems. System or process problems will become evident as you progress through an assessment of a valid sample of data. You will see the same occurrences repeated over and over again. It will become evident that a part of the process affects the accuracy or completeness of the data entered. Performance problems likewise are easily identified as you progress through the assessment. The same occurrences will happen repeatedly and will be done by the same person and should be documented using generalities and not specific employee names.

The second part of the report should be the Data Summary. This is the section of the report that has the number of findings and rates of compliance. This report can be formatted for use with any other assessment you do.

The report shall contain the number of errors and the error rate. You can collect other information that can be tabulated for assessment. Modify this part of the report as needed. Experience will help you make changes in your reports. When reports are finished, share them with the departments that had a part in the process.

Chapter 8
Assessing Data Movement

It is important that data movement be assessed in depth. This begins with assessing how soon data is entered into the RPMS and continues with assessing how soon and how efficiently it is exported. Sometimes it is important to assess whether data has been modified after export and not re-exported. It is also important to assess what the modification was if possible.

How is data movement assessed? It begins with a list of patients with encounter dates that correspond to clinic visits, home visits or whatever you are assessing. The list can be generated through any of the general searches outlined in the previous chapters. Armed with your list and using the menu option in the RPMS "Display Data for A Specific Visit", call each visit up and look for specific dates.

The specific dates to look for and record are these:

1. Encounter date
2. Date visit was created
3. Date visit was modified
4. Date visit was exported.

After these dates are recorded, calculate the number of days between the dates. Then calculate the dates between visit date and the date the visit was entered. This should be reported in whole numbers. Next calculate the difference between the date created and the date modified. The next calculation is the number of days between the encounter date and the export date. Another important calculation is the number of days between the visit creation in the RPMS and the date the visit was exported.

Please see the example of an automated spreadsheet on the next page.   This spreadsheet is formulated using EXCEL and may be downloaded from the Indian Health Performance Evaluation System (IHPES) web site. The spreadsheet is formulated so that the number of days are calculated and filled in as soon as dates are entered into the spreadsheet.

Data Movement Assessment Sheet

Health Record #	Clinic Code	Encounter Date	Date Created	#Days	Date Modified	#Days	Date Exported	#Days

Chapter 9
Things that Contribute to Poor Data

Occasionally, the error rate of an assessment will be high enough (>5%) that it is necessary to check the data closely for the cause and look in depth at the entire data process.

What does "the entire data process" mean? It means assessing the process starting with the disciplines generating the data at the onset, i.e., any discipline that documents care/services on the PCC Encounter form including staff from medical, nursing, pharmacy, dietary, social services, public health nursing; check document illegibility and purpose of visit abbreviations; that training is adequate for all disciplines on use and documentation procedures.

The next part of the process is to assess the HIMD (Medical Records) or whoever processes the PCC Encounter forms for data entry. This means separating the PCC form and sending the pink copies to the data entry personnel. Ensure that this is done in an organized and timely manner. Are there stacks of PCC's laying around in Medical Records that have never made it to the data entry personnel? How are illegible or incomplete entries handled? How are personnel that try to get clarification or completions treated? Are all the original PCC's filed in the medical record in sequential order by date?

In the data entry section consider the process relating to environment and ergonomics. Sufficient staff and adequate training must be considered. An assessment of the pay grades for these employees should be done. If these personnel are certified as coders, they can make a very good wage outside IHS thus leading to constant employee turn over which is a contributing factor to entry errors. Look at the generation and clean up of error reports.

There are also data movement considerations. If the data does not move from the local facility to the Area Office to the Data Center, it cannot be counted. Data moved to the Data Center is used to calculate many statistical reports that may be tied to funding. The IHPES uses this transmitted data to meet accreditation requirements. Timeliness of data movement is <u>critical</u> for all uses. Software and hardware can also be an issue. If all the new patches for each package in the RPMS have not been loaded or have been loaded and not working properly, this can have an adverse effect on the quality of data.

There can be "procedural problems" which are <u>habits</u> formed by any discipline or department along the data process route. Examples of this would be recording immunizations in different places or not being recorded properly on the PCC and not being entered into the system; the creation of the visit or visits and not entering crucial data such as immunizations, pap smears, mammograms, until later using a "batching" approach. These procedural problems often contribute to the timeliness of data transmission. In the case of entries of batched data, many times the visit has already been exported before the entry is made. If the visit is not flagged for re-export, that data never leaves the local site. "Orphaned visits are often generated, because a lab or pharmacy service does not link up with a PCC visit. This often affects collecting Third Party Resources.

Please refer to the table on the following page for a summary of these items.

THINGS THAT CONTRIBUTE TO POOR DATA

MEDICAL RECORDS	DATA ENTRY	DATA MOVEMENT	HARDWARE/SOFTWARE ISSUES	PROCEDURAL PROBLEMS
➢ Was documentation of measurements or other care legible?	➢ Was visit ever created or entered in the RPMS?	➢ Were some fields left blank that are required for data export? i.e., purpose of visit, date of encounter, provider codes, etc. -Are error reports generated in a timely manner and used to correct these blank fields?	➢ Have all the latest software patches been loaded at the local site?	➢ Does recording information in multiple places cause a problem? i.e., on Immunizations: - Blue Immunization Sheet - PCC form - Forms mailed to state Health Departments.
➢ Was care recorded in the wrong place on the PCC Encounter Form?	➢ Was data entered inaccurately?	➢ Although the visit was created, was it never exported for whatever reason?	➢ Are all the different packages on the RPMS working properly and communicating with each other?	
➢ Was PCC Encounter form missing from the medical record?	➢ Was data omitted at the time of entry (i.e. immunizations, temp, pulse, respiration, blood pressure, height/weight recorded on the medical record)?	➢ Are orphaned visits generated (especially in Lab & Pharmacy) when the service is provided, & this service cannot be linked to or merged with a PCC visit?		➢ Are medical records or documentation clarification accomplished in a timely manner?
➢ Was an inconsistent location used for recording care provided? -Recorded on blue immunization sheet & not on the PCC form.	➢ Was their inconsistent coding with ORYX & GPRA algorithms?	➢ Are orphaned visits & other visits not identified by running the PCC to PCIS report?		➢ Is all data entered at the time the visit is created, or is it entered later in "batches"?
➢ Were abbreviations used, especially in the Purpose of Visit section?	➢ Was there sufficient training for coders?	➢ Are outdated codes used for the purpose of visit & therefore cannot be exported? Also identified in the PCC to PCIS report. This also has an impact on facilities that do not do direct billing.		
➢ Was there sufficient training for Providers regarding documentation procedures?	➢ Are coders certified?			

Chapter 10
Designing an On-Going Data Quality Assessment Program

Creating and maintaining an on-going data quality assessment program should be as important to any facility as any of the other programs functioning at any given time. Data is used for funding, accreditation, Third Party Resources and many other functions necessary for the smooth operation of any facility. The following outline may be used to create such a program and training is available at the Area Office Training Centers:

Assemble a team made up of the key disciplines involved in generating, entering and transmitting data in the RPMS.

This team should consist of these disciplines:

1. Any discipline that documents patient care or services in the medical record, including the medical staff, nursing staff (Public Health Nursing), pharmacy staff, social service staff or any other discipline using the PCC form.
2. HIMD personnel that maintain medical records.
3. Personnel that enter information about a patient visit or encounter into the RPMS.
4. RPMS Site Managers or any MIS personnel.
5. Quality Management personnel (could be the facilitator of this team).

Provide in-service training to this assembled team about the need for data quality (could review this manual and the process of generating, entering and transmitting data with the team). Ensure that each step in the process is covered and understood by the team.

The team should decide what areas of the process to assess, agree upon a sample size and the assessment method that will be used. Based on the decision, use information on various packages in the RPMS searches provided in this manual to sort information for assessment.

Use the tools or worksheets provided in this manual to assess your data. The actual assessment will take the most time. This assessment should be fairly large and be used as a baseline measure. It can be referenced for improvement purposes or can be used to determine the reason for lack of improvement. Tabulating and analyzing the assessment result is covered in this manual. This is the step in which data is changed into information.

Once the baseline assessment is completed and the result is tabulated and analyzed, you can determine where the greatest opportunity for improvement is located. This should be the focus of an on-going data quality assessment program. This could be conducted on a quarterly or semi-annual basis until the improvement desired is achieved. The amount of time for these assessments will be less than the baseline assessment required.

The decisions, methods and the on-going program could be written into the Information Management Plan for your facility. However, if you write it into the plan you must show verification that the plan has been carried out.

Chapter 11
Expanded Data Searches Using Q-Man

Data Extraction Report Examples

The RPMS is an integrated group of automated data systems designed to operate at each IHS facility. The primary RPMS objective is to integrate patient care and cost data in an automated data processing system that collects and stores health care and administrative management data for each health care discipline. The collection and storage of this data is designed to support health care delivery, planning, management, and research.

This section incorporates examples of some of the most commonly used reports within the RPMS environment and provides easy access and step-by-step instructions to define a variety of ad hoc search criteria and successful generation of reports.

Data Quality Handbook

The Data Quality Handbook focuses on comparisons of the IHS Performance Objectives pertaining to the GPRA 1999 and ORYX identified objectives.

This Draft version illustrates step-by-step examples of extracting "Random Samples " reports from the RPMS Clinical Database for the purpose of conducting Manual Chart Reviews. These audits serve to verify the accuracy of the automated ICD9 Coding and all related Patient Care data items.

PROVIDER VISIT COUNT

Software: PCC Management Reports
Menu Path: APC,APRV

This report generates a count of visits by Provider of Service for a date range that you specify. The only visits included in this report are those with a service category of Ambulatory, Nursing Home, Observation and Day Surgery. Visits with the following clinic codes are excluded: Mail, Telephone Call, Chart Review, Follow Up Letter, Radio Call, Dental, Education Classes, and Employee Health. The visits also include those passed to the APC System.

Procedure

1) Select one of the following:
   P   Primary Provider Only
   A   All Providers (Primary and Secondary)

   Report should include: **All** Providers (Primary and Secondary)

   a. Enter beginning Visit Date for Search: **1-1-2000** (JAN 01, 2000)

   b. Enter ending Visit Date for Search: T (JUN 23, 2000)

c. Include visits from ALL Locations? **YES**

d. DEVICE: **Enter Printer#**

Report Example

```
************************************************************************
   * PARKER HOSP                           JUN 23, 2000  Page 1      *
   * NUMBER OF APC VISITS BY ALL PROVIDERS OF SERVICE                *
   * LOCATION OF VISITS:  ALL                                        *
   * REPORT DATE:  JAN 01, 2000  TO  JUN 23, 2000                    *
************************************************************************


   PROVIDER OF SERVICE         DISCIPLINE OF   PROV           # VISITS
   ANDERSON,JAMES R            OSTEOPATH                         10
   ATON,ADAM E                 PHYSICIAN                          5
   BACON,DEBORAH A             SURGEON                            7
   BROWN,LIANE J               PEDORTHIST                         3
   BROWN,BILL                  PHYSICIAN                        122
   COTTONTAIL,PETER            PHYSICIAN                         14
   DASH,RAMONA                 PHYSICIAN                         22
   BROWN,JAMES                 OTHER                              6
   SMITH,JOHN                  CASE MANAGERS                      1
   DOCTOR,ONE                  PHYSICIAN                          9
   JONES,PARNELLI              AMBULANCE DRIVER                  15
   GARDNER,JOHN                PHYSICIAN                          1
                                                  Total:        538
```

PROVIDER TOP 10 VISIT COUNT

Software: PCC Management Reports
Menu Path: CNT, TEN (Frequency of Diagnoses Report)

This report generates, for an individual provider, the number of patients seen within a specified period of time for an indicated number of the most frequently assigned ICD-9 Codes and major diagnostic categories. The example below generates a report of the number of patients presenting to Dr. Stanley for the 10 most frequent POVs/Diagnostic Categories during a 6-month period.

Procedure

1) Enter beginning Visit Date: **1-1-2000**

2) Enter ending Visit Date: **6-26-00**

3) How many entries do you want in the list: (5-100): 10//**RETURN KEY**
   GENERAL RETRIEVAL VISIT Selection Menu – Visits can be selected based upon any of the following items. Select as many as you wish, in any order or combination. An asterisk (*) indicates items already selected. To bypass screens and select all visits hit **Q**.

4) From General Retrieval Item Selection choose item: **Primary Prov Name**

5) Enter Provider: **STANLEY,BRIAN R**

6) Enter ANOTHER PROVIDER: **RETURN KEY**

7) The following have been selected=>
   STANLEY,BRIAN R

8) Selection Action: S// **Q** Quit Item Selection

   Select one of the following:
   P   Primary Purpose of Visit
   A   All Purpose of Visits (Primary and Secondary)

9) Report should include: **All** Purpose of Visits (Primary and Secondary)

   Select one of the following:
   L   List of items with Counts
   B   Bar Chart (132 col)

10) Select TYPE OF OUTPUT: L//**RETURN KEY**

11) DEVICE: Enter Printer#

Report Example

```
                 ***** FREQUENCY OF DIAGNOSIS REPORT *****

REPORT REQUESTED BY: USER NAME HERE

The following report contains a PCC Visit report based on the following
criteria:

VISIT Selection Criteria

Encounter Date range:  JAN 01, 2000 to JUN 26, 2000
Primary Prov Name:  STANLEY,BRIAN R
ALL (Primary and Secondary) POV's included.

Total COUNT of Visits: 120

    ********** FREQUENCY OF DIAGNOSES REPORT **********

No. VISITs: 120    No. POVs: 162    POV/VISIT ratio: 1.35 (min. std. > 1.6)

TOP 10 POV's =>

   1.    250.00   DM UNCOMPL/T-II/NIDDM,NS UNCON  (23)
   2.    465.9    ACUTE URI NOS  (20)
   3.    460.     ACUTE NASOPHARYNGITIS  (11)
   4.    995.2    ADV EFF MED/BIOL SUB NOS  (8)
   5.    351.0    BELL'S PALSY  (7)
   6.    486.     PNEUMONIA, ORGANISM NOS  (7)
   7.    401.9    HYPERTENSION NOS  (6)
   8.    533.90   PEPTIC ULCER NOS  (6)
   9.    824.8    FX ANKLE NOS-CLOSED  (5)
  10.    873.0    OPEN WOUND OF SCALP  (5)

TOP 10 DIAGNOSTIC CATEGORIES =>

   1.    ENDOCRINE,NUTRIT,METABOLIC  (39)
   2.    EAR, NOSE, MOUTH & THROAT   (34)
   3.    HEALTH STATUS FACTORS   (21)
   4.    NERVOUS SYSTEM   (13)
   5.     RESPIRATORY SYSTEM   (9)
   6.    INJURY,POISONING,DRUG TOXICITY   (8)
   7.    DIGESTIVE SYSTEM   (7)
   8.    CIRCULATORY SYSTEM   (6)
   9.    MUSCULOSKELETAL & CONNECTIVE T   (5)
  10.    SKIN,BREAST,SUBCUTANEOUS T   (5)

RUN TIME (H.M.S): 0.0.9
End of report.  HIT RETURN:
```

HOSPITAL DISCHARGES BY INDIVIDUAL PROVIDER

Software: PCC Management Reports
Menu Path: QA, AUD (Random Sample of Visits by DX and Date)

This report generates a list of hospital discharge by either all providers or an individual provider and includes chart number, patient name, patient date of birth, and ICD9 and diagnostic codes.

Procedure

1) Enter beginning Visit Date for Search: **1-1-2000**

2) Enter ending Visit Date for Search: **6-26-00**

3) Want to restrict Audit Search to Patients within an Age Range? NO//**RETURN KEY**

4) Want to restrict Audit Search to Visits with a particular SEX? NO// **RETURN KEY**

5) Want to restrict Audit Search to Visits with a particular SERVICE CATEGORY? NO// **YES**

6) Which Service Category: **HOSPITALIZATION**

7) Want to restrict the audit search by VISIT TYPE? NO// **RETURN KEY**

8) Want to restrict the audit search by LOCATION of ENCOUNTER? NO// **RETURN KEY**

   *** Audit Search ***
   SEARCH Criteria

   Visit Date Range: JAN 01, 2000 through JUN 26, 2000.
   No Age Range restrictions.
   All ICD Coded Diagnoses will be included.
   Sex Selected: ALL
   Service Category Selected: HOSPITALIZATION
   Visit Type Selected: ALL
   Visit Location of Encounter: ALL
   Visit Clinic Type Selected: ALL
   ALL Providers Selected.

8) The Audit Search can report on all Visits that match the above criteria, or it can report on a randomized sampling of matching Visits.

9) Select one of the following:
   A   ALL Visits that match
   R   Random sample of visits that match

   Which visit set: A// **RETURN KEY**

10) DEVICE: **Enter Printer #**

Report Example

```
PARKER HOSP                        JUN 26,2000      Page 1

              Audit Search Criteria

---------------------------------------------------------------------------------------------------------------

This Audit Search is based on the following criteria:

  1.  Ambulatory Visits from JAN 1,2000 through JUN 26,2000
  2.  All Patient Ages included.
  3.  ALL Patient Sex
  4.  HOSPITALIZATION Visit Service Category.
  5.  ALL Visit Types.
  6.  ALL Visit Clinic Type.
  7.  ALL Location of Encounter
  8.  ALL ICD Codes.
  9.  ALL Primary Providers.
 10.  ALL Diagnoses that match the Search Criteria.


- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
PARKER HOSP                                        JUN 26,2000    Page 2
                      Audit Search Criteria

Audit Search for Ambulatory Visits from JAN 1,2000 through JUN 26,2000.

  HRCN        Visit Date      Primary Provider      Patient Name        DOB
              ICD9            DIAGNOSIS
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  8965        MAY 23,2000   TANNER,ROLAND D    ADAMS,CATHY      01/01/1995
              303.93    10.30

  8965        MAY 23,2000   TANNER,ROLAND D    ADAMS,CATHY      01/01/1995
              250.00        DM UNCOMPL/T-II/NIDDM,NS UNCON      ****ICD****

  8965        MAY 23,2000   TANNER,ROLAND D    ADAMS,CATHY       01/01/1995
              784.0         HEADACHE                            ****ICD****

369258        MAY 26,2000   LONGIE,KEITH        SAYPATHI, SARI  11/02/1999
              303.90        ALCOH DEP NEC/NOS-UNSPEC            ****ICD****

  2255        MAY 26,2000   ADAM,ADAM           JONES,JENNY     02/02/1983
              382.9         OTITIS MEDIA NOS                    ****ICD****

  2255        MAY 26,2000   ADAM,ADAM           JONES,JENNY     02/02/1983
              401.9         HYPERTENSION NOS                    ****ICD****

  2255        MAY 26,2000   ADAM,ADAM           JONES,JENNY     02/02/1983
              465.9         URI

  2255        MAY 26,2000   ADAM,ADAM           JONES,JENNY     02/02/1983
              250.00        DM UNCOMPL/T-II/NIDDM,NS UNCON      ****ICD****
```

PRENATAL PATIENTS – TOBACCO ABUSE

Software: QMAN (PCC Query Utility)
Menu Path: PCC, QMAN, SEARCH

This report generates, for a designated period of time, a list of prenatal patients seen with an active problem of tobacco abuse, with options to identify them only by chart number and to identify their diagnoses by ICD9 codes and/or provider narratives.

Procedure

1) What is the subject of your search? LIVING PATIENTS// **RETURN KEY**

2) Attribute of LIVING PATIENTS: **SEX**

3) Value: **FEMALE**

4) Attribute of LIVING PATIENTS: **DX**
   Enter DX: **V22.0-V22.1**
   SUBQUERY: **Analysis of multiple DIAGNOSES**
   First condition/attribute of "DIAGNOSIS: **DURING THE TIME PERIOD**
   Exact Starting Date: **T-310**
   Exact Ending Date: **T**

5) Attribute of LIVING PATIENTS: **DX**
   Enter DX: **305.1-305.12**
   SUBQUERY: **Analysis of multiple DIAGNOSES**
   First condition/attribute of "DIAGNOSIS: **RETURN KEY**

   Attribute of LIVING PATIENT:
   Subject of search: PATIENTS
   ALIVE TODAY
   SEX IS FEMALE
   DIAGNOSIS (V22.0/V22.1)
   Subject of subquery: DIAGNOSIS
   ** BETWEEN (9 Month Time Frame)
   DIAGNOSIS (305.1/305.12)

6) Select one of the following:

   1 DISPLAY results on the screen
   2 PRINT results on paper
   3 COUNT 'hits'
   4 KEEP 'hits' in a FM search template
   5 STORE search logic for future use
   6 R-MAN special report generator

   Your choice: DISPLAY// **2**

7) You have 3 Options for listing DIAGNOSES=

   1   For each patient, list all ICD9 Codes
   2   For each patient, list all ICD9 Codes & Provider Narratives
   3   List all PATIENTS with ICD9 CODES you specified, but DO NOT list individual
       ICD9 CODES or PROVIDER NARRATIVES

       Your Choice (1-3): 1// **2**

8) Want to suppress patient names and only print the chart no.? NO// **YES**

9) DEVICE: Queue To Print On   **RETURN KEY**

10) DEVICE: Enter a Printer Number   **RETURN KEY**

11) Requested Start Time: NOW// **T@1700**

    ** Indicates varied time frames (Relevant Time Frames T=Today)

Report Example

```
Requested by: Site Manager
Date of Report: January 7, 2000

**** IHS Query Manager Confidential Patient Data ****

PATIENTS   HEALTH DX/ICD9   ICD9     DATE OF POV    PROVIDER NARRATIVE  SEX
(Alive)    NUMBER           #        CODE
********   3307      +      305.10   1-22-1999      SMOKER FEMALE
********   3308      +      305.10   2-22-1999      SMOKER FEMALE
********   3309      +      305.10   3-22-1999      SMOKER FEMALE
********   3311      +      305.10   4-22-1999      SMOKER FEMALE
********   3312      +      305.10   5-22-1999      SMOKER 1/2 PPD       FEMALE
********   3313      +      305.10   6-22-1999      SMOKER FEMALE
********   3314      +      305.10   10-21-1999     SMOKER FEMALE
********   3320      +      305.10   12-23-1999     SMOKER FEMALE
********   3302      +      305.10   12-24-1999     SMOKER 3/4 PPD       FEMALE
********   3324      +      305.10   12-28-1999     SMOKER FEMALE
********   3325      +      305.10   2-22-1999      SMOKER FEMALE
********   3330      +      305.10   3-23-1999      SMOKER FEMALE
********   3331      +      305.10   4-25-1999      SMOKER LIGHT USE     FEMALE
********   3332      +      305.10   5-30-1999      SMOKER FEMALE
********   3333      +      305.10   2-22-1999      SMOKER FEMALE
********   3334      +      305.10   6-22-1999      SMOKER FEMALE
********   3335      +      305.10   1-22-1999      SMOKER FEMALE
********   3340      +      305.10   2-22-1999      SMOKER ABUSE         FEMALE
********   3345      +      305.10   2-22-1999      SMOKER FEMALE
********   3350      +      305.10   2-23-1999      SMOKER PK/DAY 20YR  FEMALE
Total: 21
```

PRENATAL PATIENTS

Software: QMAN (PCC Query Utility)
Menu Path: PCC, QMAN, SEARCH

This report generates a list of prenatal patients seen in the last two years with the purpose of visit relating to alcohol abuse. The report can be generated monthly, semi-annually, or annually for distribution to the Chief Medical Officer, Assistant Area Director, Health Care Programs, Service Unit Public Health Nurse, or Area Public Health Nurse.

Procedure

1) What is the subject of your search? LIVING PATIENTS// **RETURN KEY**

2) Attribute of LIVING PATIENTS: **SEX**

3) Value: **FEMALE**

4) Attribute of LIVING PATIENTS: **DX**
   Enter DX: **V22.0-V22.1**
   SUBQUERY: **Analysis of multiple DIAGNOSES**
   First condition/attribute of "DIAGNOSIS: **DURING THE TIME PERIOD**
   Exact Starting Date: **T-310**
   Exact Ending Date: **T**

5) Attribute of LIVING PATIENTS: **DX**
   Enter DX: **303.90-303.93**
   Enter DX: **291.0-291.9**
   Enter DX: **305.0-305.03**
   Enter DX: **648.40-648.44**
   Enter DX: **655.50-655.53**

   Want to save this DX group for future use? NO// **Yes**

6) Group Name: **ALCOHOL W/PN**
   ARE YOU ADDING 'ALCOHOL W/PN' AS A NEW TAXONOMY? **YES**
   SUBQUERY: **Analysis of multiple DIAGNOSES**
   First condition/attribute of "DIAGNOSIS: **DURING THE TIME PERIOD**
   Exact Starting Date: **1-15-99**
    Exact Ending Date: **1-14-00

7) Attribute of LIVING PATIENT:
   Subject of search: PATIENTS
   ALIVE TODAY
   SEX IS FEMALE
   DIAGNOSIS (V22.0/V22.1)
   Subject of subquery: DIAGNOSIS
   **BETWEEN (9 Month Time Frame)
   DIAGNOSIS (291.1/291.2...)
   Subject of subquery: DIAGNOSIS
   **BETWEEN (1 Year Time Frame)

8) Select the following menu item:

   Your choice: DISPLAY// **2 PRINT results on paper**

9) You have 3 Options for listing DIAGNOSES=)

   1   For each patient, list all ICD9 Codes
   2   For each patient, list all ICD9 Codes & Provider Narratives
   3   List all PATIENTS with ICD9 CODES you specified, but DO NOT list individual
       ICD9 CODES or PROVIDER NARRATIVES

   Your Choice (1-3): 1// **2**

10) Want to suppress patient names and only print the chart no.? NO// YES

12) DEVICE: Queue To Print On **RETURN KEY**

13) DEVICE: Enter a Printer Number **RETURN KEY**

14) Requested Start Time: NOW// **T@1700**

   NOTE: * Future Reports, utilize the Taxonomy by entering [ALCOHOL W/PN]
            ** Indicates varied time frames (Enter desired report date).

Report Example

This report requested by: Site Manager
Date of Report: January 20, 2000

**** IHS Query Manager Confidential Patient Data ****

PATIENTS (Alive)	HEALTHDX/ICD9 NUMBER	#	ICD9 CODE	DATE OF POV	PROVIDER NARRATIVE	SEX
********	3307	+	303.90	1-22-1999	ALCOHOL DEPENDENCE	FEMALE
********	3308	+	303.90	2-22-1999	ALCOHOL DEPENDENCE	FEMALE
********	3309	+	303.90	3-22-1999	ALCOHOL DEPENDENCE	FEMALE
********	3311	+	303.90	4-22-1999	ALCOHOL DEPENDENCE	FEMALE
********	3312	+	303.90	5-22-1999	ALCOHOL ABUSE	FEMALE
********	3313	+	303.91	6-22-1999	ALCOHOL DEPENDENCE	FEMALE
********	3314	+	303.91	10-21-1999	ALCOHOL DEPENDENCE	FEMALE
********	3320	+	303.91	12-23-1999	ALCOHOL DEPENDENCE	FEMALE
********	3302	+	303.90	12-24-1999	PHX ETOH ABUSE	FEMALE
********	3324	+	303.90	12-28-1999	ALCOHOL DEPENDENCE	FEMALE
********	3325	+	303.90	2-22-1999	ALCOHOL DEPENDENCE	FEMALE
********	3330	+	303.90	3-23-1999	ALCOHOL DEPENDENCE	FEMALE
********	3331	+	303.90	4-25-1999	ALCOHOL DEPENDENCE	FEMALE
********	3332	+	303.93	5-30-1999	ALCOHOL DEPENDENCE	FEMALE
********	3333	+	303.93	2-22-1999	ALCOHOL DEPENDENCE	FEMALE
********	3334	+	303.91	6-22-1999	ALCOHOL DEPENDENCE	FEMALE
********	3340	+	303.90	2-22-1999	ALCOHOL DEPENDENCE	FEMALE
********	3345	+	303.90	2-22-1999	ALCOHOL DEPENDENCE	FEMALE
********	3350	+	303.90	2-23-1999	PRENATAL ETOH ABUSE	FEMALE

Total: 19

CHILDHOOD QUARTERLY IMMUNIZATION REPORT

Software: IMMUNIZATION PACKAGE
Menu Path: IMM, REP, QTR

This report provides a childhood immunizations list compiled quarterly. The optional criteria includes data by community, case manager, and/or beneficiary type.

Procedure

    1 - Quarter Ending Date:
    2 - Community...........: ALL
    3 - Case Manager.......: ALL
    4 - Beneficiary Type...: ALL

    1) Select a left column number to change an item.
        View Quarterly Report
        Print Quarterly Report

        Select Action: Quit// **1 (Quarter Ending Date)**

    2) Please enter a Quarter Ending Date: **1-1-99**

        1 - Quarter Ending Date: 01-Jan-1999
        2 - Community...........: ALL
        3 - Case Manager.......: ALL
        4 - Beneficiary Type...: ALL

    3) Select a left column number to change an item. **RETURN KEY**
        View Quarterly Report
        Print Quarterly Report

        Select Action: Quit// **P   Print Quarterly Report**

    4) Select DEVICE: **Enter Printer #**

Report Example

```
                        PARKER HOSP                          page 1
                 Quarterly Immunization Report
                 For Children 3-27 Months of Age
                          01-Jan-1998
----------------------------------------------------------------------
            |                  Age in Months
            |
            |-------------------------------------------------- | Totals
            |   3-4      5-6      7-15     16-18    19-23    24-27 |
            ========================================================
# in Age |    1        0        1        0        1        0   |   3
            ----------------------------------------------------------
Minimum  |  1-DTaP   2-DTaP   3-DTaP   3-DtaP   4-DtaP   4-DtaP |
Needs    |  1-POLIO  2-POLIO  2-POLIO  2-POLIO  3-POLIO  3-POLI |
         |  1-HIB    2-HIB    2-HIB    3-HIB    3-HIB    3 -HIB |
         |  1-HEPB   2-HEPB   2-HEPB   2-HEPB   3-HEPB   3-HEPB |
         |                             1-MMR    1-MMR    1-MMR  |
            ----------------------------------------------------------

Continues with Vaccine breakdown, by child age
```

AGE GROUP CLIENT CONTACT SUMMARY FOR AN INDIVIDUAL PROVIDER

Software: QMAN (PCC Query Utility)
Menu Path: QMAN

This report provides a visit count summary, by age, group, and sex, for a particular Provider of Service for a selected time frame.

Procedure

1) What is the subject of your search? LIVING PATIENTS // **PATIENTS**

2) Attribute of LIVING PATIENTS: **VISIT**
   SUBQUERY: Analysis of multiple VISITS

   First condition of "VISIT": **SINCE**
   Exact date: **1-1-2000**

   Next condition of "VISIT": **PROVIDER**

   ***** PROVIDER-RELATED CRITERIA *****

3) You can either specify one or more providers by NAME, or..... specify one or more PROVIDER ATTRIBUTES (affiliation, specialty, etc) to be used as selection criteria.

4) Select one of the following:

   1   NAME(S) of providers
   2   ATTRIBUTE(S) of providers
   Your choice: NAME(S)// **RETURN KEY**

5) Enter PROVIDER: **STANLEY,BRIAN R**

6) Enter ANOTHER PROVIDER: **RETURN KEY**

7) When I check the providers from each encounter, you can limit my analysis to the PRIMARY provider only, SECONDARY providers, or ALL providers.

   Select one of the following:

   1   PRIMARY providers only
   2   SECONDARY providers only
   3   ALL providers

8) Next condition of "VISIT": **RETURN KEY**

9) Attribute of LIVING PATIENTS: **SEX**
   VALUE: **ANY**

10) Attribute of LIVING PATIENTS: **RETURN KEY**
    ***** Q-MAN OUTPUT OPTIONS *****

11) Select one of the following:

    1   DISPLAY results on the screen
    2   PRINT results on paper
    3   COUNT 'hits'
    4   STORE results of a search in a FM search template
    5   SAVE search logic for future use
    6   R-MAN special report generator
    9   HELP
    0   EXIT

     Your choice: DISPLAY// *6* R-MAN special report generator

     ***** R-MAN CUSTOM REPORT GENERATOR *****

12) Select one of the following:

    1   CUSTOM configured reports
    2   E-MAN data export manager
    3   GRAPHS and statistics
    4   SORTS and subtotals
    5   SPECIAL reports ('buckets', health summaries, etc.)
    9   HELP
    0   EXIT

    Your choice: **5** SPECIAL reports ('buckets', health summaries, etc.)

***** R-MAN SPECIAL REPORTS *****

13) Select one of the following:

    1   AGE buckets
    2   HEALTH summaries
    3   MAILING labels
    4   MONTH buckets
    5   TIME series
    6   WORKLOAD distribution
    9   HELP

    Your choice: **1** AGE buckets

    CURRENT SET UP
    AGE GROUPS =>
    10-20
    30-40
    40-50
    50-60
    60-70
    80+

14) Do you want to define a new set of age buckets? No// **YES**
    If you exceed 8 buckets, the display will wrap...

    1   Enter the starting age of the first age group: 1
    2   Enter the starting age of the next age group: 20
    3   Enter the starting age of the next age group: 40
    4   Enter the starting age of the next age group: 60
    5   Enter the starting age of the next age group: 80
    6   Enter the starting age of the next age group:
    7   Enter the highest age for the last group:
         AGE GROUPS =>
         1 - 19
         20 - 39
         40 - 59
         60 - 79
         80+

15) Do you want to have ages calculated as of a date other than today's date? No// **RETURN KEY**

16) You have 2 options for listing VISITS =>

    1   For each patient, list all VISITS which match your criteria
    2   List all PATIENTS with VISITS meeting your criteria, but do not list the
         individual values of each VISIT.

    Your choice (1 or 2): 1// **RETURN KEY**

Select one of the following:

1   SEX
8   NONE
9   HELP
0   EXIT

Your choice: NONE// **1** SEX

17) DEVICE: **Enter Printer #**
     CRUNCH, CRUNCH....

Report Example

```
                              AGE GROUPS
SEX            1-19      20-39      40-59     60-79    80+      TOT
-------------------------------------------------------------------
FEMALE          10         30         29         7       3       79
MALE             6         20         19         9       .       54

TOTAL           16         50         48        16       3      133
```

WORKLOAD (CONTACTS) BY A PARTICULAR PROVIDER DISCIPLINE/CLASS

Software: PCC Management Reports
Menu Path: PCCV, ALL

This report summarizes visits by Service Category and Location of Encounter for a particular Provider Discipline/Class. It lists a count of all visits by Provider, Location of Service, and Service Category. All visits are included, regardless of type or service category. The visit must not be deleted and shall have at least one provider and one purpose of visit. The user may select one or all providers, one or all locations and whether or not the provider is the primary provider.

Procedure

1) Enter Beginning Visit Date: **1-1-2000**

2) Enter Ending Visit Date: **6-26-00**

3) Select one of the following:

    O   One Provider Only
    P   All Providers
    D   One Provider Discipline
    A   All Provider Disciplines
    X   All Providers within One Discipline

    Report should include and sort by: **D** One Provider Discipline

4) Which Provider Discipline: **PHYSICIAN**
   Select one of the following:

   P   Primary Provider
   S   Primary or Secondary Provider

   Include if Provider is: P// **S** Primary or Secondary Provider

5) Include visits from ALL Locations? **YES**

6) DEVICE**: Enter Printer #**

Report Example

```
          NUMBER OF CONTACTS BY PROVIDER, LOCATION AND SERVICE CATEGORY
                         LOCATION OF VISITS: ALL
                        PROVIDER DISCIPLINE: PHYSICIAN
                    PRIMARY AND SECONDARY PROVIDERS INCLUDED
                   VISIT DATES: JAN 01, 2000 TO JUN 26, 2000


     LOCATION OF VISIT
          SERVICE CATEGORY                         # PROVIDER CONTACTS
-----------------------------------------------------------------------------
Provider Discipline:  PHYSICIAN


     SELLS HOSP
          AMBULATORY                                       1
     PHOENIX AO
          AMBULATORY                                       66
     PARKER HOSP
          AMBULATORY                                       235
          CHART REVIEW                                     22
          HOSPITALIZATION                                  2
          TELECOMMUNICATIONS                               10
     PHOENIX ADMINISTRATION
          AMBULATORY                                       10
          TELECOMMUNICATIONS                               1
     PICURIS H L
          AMBULATORY                                       2
     TUBA CITY HIGH SCHOOL
          AMBULATORY                                       1

             Total Number of Provider Contacts:        350

RUN TIME (H.M.S): 0.0.5
End of report.  HIT RETURN:
```

WORKLOAD FOR A SELECTED SERVICE CATEGORY AND PROVIDER

Software: PCC Management Reports
Menu Path: PCCV, ALL, AUD (Random Sample of Visits by DX and Date)

This report provides an example of the workload in a Service Category (Chart Review) for a particular Provider.

Procedure

1) Enter beginning Visit Date for Search: **1-1-2000**

2) Enter ending Visit Date for Search: **6-26-00**

3) Do you want to restrict the Audit Search to Patients within an Age Range? NO// **RETURN KEY**

4) Want to restrict the Audit Search to Visits with a particular SEX? NO// **RETURN KEY**

5) Want to restrict the Audit Search to Visits with a particular SERVICE CATEGORY? NO// **YES**

6) Which Service Category: **CHART REVIEW**

7) Want to restrict the audit search by VISIT TYPE? NO// **RETURN KEY**

8) Want to restrict the audit search by CLINIC TYPE? NO// **RETURN KEY**

9) Want to restrict the audit search by LOCATION of ENCOUNTER? NO// **RETURN KEY**

10) Do you want ALL Providers? Y// **NO**

11) The Audit Search will include only Visits for which the Primary Provider matches the one(s) you select.

12) Select Provider: **STANLEY,BRIAN R** PHYSICIAN AB1234567 AC12345

12) The Audit Search can report on all Visits that match the above criteria, or it can report on a randomized sampling of matching Visits.

Select one of the following:

A   ALL Visits that match
R   Random sample of visits that match
Which visit set: A// **RETURN KEY**

13) DEVICE: **Enter Printer #**

Report Example

```
PARKER HOSP                                         JUN 26,2000   Page 1
                           Audit Search Criteria
-----------------------------------------------------------------------------

This Audit Search is based on the following criteria:

1.  Ambulatory Visits from JAN 1,2000 through JUN 26,2000
2.  All Patient Ages included.
3.  ALL Patient Sex
4.  CHART REVIEW Visit Service Category.
5.  ALL Visit Types.
6.  ALL Visit Clinic Type.
7.  ALL Location of Encounter
8.  ALL ICD Codes.
9.  The following Primary Providers:
       STANLEY,BRIAN R
10. ALL Diagnoses that match the Search Criteria.

PARKER HOSP                                         JUN 26,2000   Page 1

Audit Search for Ambulatory Visits from JAN 1,2000 through JUN 26,2000.

   HRCN   Visit Date    Primary Provider    Patient Name                DOB
          ICD9          DIAGNOSIS
-----------------------------------------------------------------------------

  14952   JAN 26,2000   STANLEY,BRIAN R     MERTYN,PATRONELLA       09/04/1981
          272.4         HYPERLIPIDEMIA

   9282   JAN 26,2000   STANLEY,BRIAN R     ESPE,BEVERLY ANN        09/15/1952
          272.4         CHART REVIEW

   7920   JAN 26,2000   STANLEY,BRIAN R     HYLL,PAMELA CECILLE     07/10/1951
          272.4         CHART REVIEW

   7329   JAN 26,2000   STANLEY,BRIAN R     ADDI,SUE                08/21/1946
          272.7         XANTHOMA

  14952   JAN 26,2000   STANLEY,BRIAN R     MERTYN,PATRONELLA       09/04/1981
          272.7         XANTHOMA L. THUMB

   9282   JAN 26,2000   STANLEY,BRIAN R     ESPE,BEVERLY ANN        09/15/1952
          272.7         XANTHOMA L. THUMB-CHART REVIEW

   7920   JAN 26,2000   STANLEY,BRIAN R     HYLL,PAMELA CECILLE     07/10/1951
          272.7         XANTHOMA L. THUMB – CHART REVIEW

  17061   JAN 26,2000   STANLEY,BRIAN R     JUNAS,DAISY B           01/16/1962
          401.9         HTN-CHART REVIEW
```

DIABETIC PATIENTS – REQUIRING A CURRENT HEIGHT MEASUREMENT

Software: QMAN
Menu Path: PCC, QMAN, SEARCH

This report lists the number of non-insulin dependent diabetic patients seen in a one year timeframe with no height record for the same period of time.

Procedure

1) What is the subject of your search? LIVING PATIENTS // **LIVING PATIENTS**

2) Attribute of PATIENT: **DX**

3) Enter DX: **250.00-250.93**

   Code Range(s) Selected So Far =>
   250.00 - 250.93

4) Enter ANOTHER DX: **RETURN KEY**

5) Want to save this DX group for future use? No// **RETURN KEY**

   SUBQUERY: Analysis of multiple DIAGNOSES

   First condition of "DIAGNOSIS": **DURING THE TIME PERIOD**
   Exact starting date: **1-1-99**
   Exact ending date: **12-31-99**

   Next condition of "DIAGNOSIS": **RETURN KEY**

6) Attribute of PATIENT: **HEIGHT**

   SUBQUERY: Analysis of multiple HEIGHTS

   First condition of "HEIGHT": DURING THE TIME PERIOD
   Exact starting date: **1-1-99**
   Exact ending date: **12-31-99**

   Next condition of "HEIGHT": **NULL**

   Computing Search Efficiency Rating....
   Subject of search: PATIENTS ALIVE TODAY
   DIAGNOSIS (250.01/250.11...) [SER = 15.23]
   Subject of subquery: DIAGNOSIS
   BETWEEN JAN 1,1999 and DEC 31,1999
   Subject of subquery: HEIGHT(ins)
   BETWEEN JAN 1,1999 and DEC 31,1999
   'NULL' (None meet criteria)

7) Attribute of PATIENT: **RETURN KEY**

   ***** Q-MAN OUTPUT OPTIONS *****

8) Select one of the following:

   1   DISPLAY results on the screen
   2   PRINT results on paper

3   COUNT 'hits'
4   STORE results of a search in a FM search template
5   SAVE search logic for future use
6   R-MAN special report generator
9   HELP
0   EXIT

    Your choice: DISPLAY// **2** PRINT results on paper

9) Want to suppress patient names and only print the chart no.? No// **RETURN KEY**

10) DEVICE: **Enter Printer #**

Report Example

```
PATIENTS             PARKER          DX/ICD9   HT
                     NUMBER             #      ins
---------------------------------------------------------------
ADDI,SUE             7329               +       -
ADDI,ALDEN L         15633              +       -
DUMYNGOAZ,VERONI     14945              +       -
FLURAS,PATRICIA      11279              +       -
FLURAS,JOSHUA        16189              +       -
MERTYN,FRANCES D     11553              +       -
GERCYE,DELPHINA      15429              +       -
ANRYQOAZ,ELSIE M     5199               +       -
SCUTT,JAMESINA       5267               +       -
DUCK,BECKY J         5626               +       -
CHERLAS,MILDRED      5684               +       -
HERPAR,ADAM          5763               +       -
MERTYN,ELVIS DEO     5775               +       -
LENA,MYRTLE B        13021              +       -
LAYVES,AUSTIN B      5168               +       -
BERRECKMEN,FAITH     7500               +       -
FYSHAR,LAWRENCE      7542               +       -
ADDI YYY,RICKEY*     10716              +       -
```

LIST OF PATIENTS DUE FOR A PAP SMEAR

Software: QMAN
Menu Path: PCC, QMAN, SEARCH

This report lists female patients (ages 18-55) who have visited an IHS facility in the past year, but have NOT had a pap smear in the past two (2) years.

Procedure

1) What is the subject of your search? LIVING PATIENTS // **LIVING PATIENTS**

2) Attribute of LIVING PATIENTS: SEX

Select From:
M   Male
F   Female

Value: **F** FEMALE

3) Attribute of LIVING PATIENTS: **AGE**
   Condition: **BETWEEN,**AGES (inclusive)
   Start with (and include) AGE: **18**
   End with (and include) AGE: **55**

4) Attribute of LIVING PATIENTS: **VISIT**

   SUBQUERY: Analysis of multiple VISITS

   First condition of "VISIT": **DURING** THE PERIOD
   Exact starting date: **1-1-99**
   Exact ending date: **12-31-99**

   Next condition of "VISIT": **RETURN KEY**

5) Attribute of LIVING PATIENTS: **PAP SMEAR**

   SUBQUERY: Analysis of multiple PAP SMEARS
   First condition of "PAP SMEAR": **DURING** THE TIME PERIOD
   Exact starting date: **1-1-98**
   Exact ending date: **12-31-99**

   Next condition of "PAP SMEAR": **NULL**

   Computing Search Efficiency Rating....
   Subject of search: PATIENTS
   ALIVE TODAY   [SER = .02]
   SEX: FEMALE   [SER = 1.27]
   AGE BETWEEN,AGES (inclusive) 18 and 55   [SER = .85]
   Subject of subquery: VISIT
   BETWEEN JAN 1,1999 and DEC 31,1999@23:59:59
   Subject of subquery: PAP SMEAR
   BETWEEN JAN 1,1998 and DEC 31,1999@23:59:59
   'NULL' (None meet criteria)

6) Attribute of LIVING PATIENTS: **RETURN KEY**

   ***** Q-MAN OUTPUT OPTIONS *****

7) Select one of the following:

   1   DISPLAY results on the screen
   2   PRINT results on paper
   3   COUNT 'hits'

Report Example

```
PATIENTS              PARKER        SEX          AGE         VISIT      PAP
(Alive)               NUMBER
-------------------------------------------------------------------------
CUTE,WINIFRED         15585         FEMALE        30           +         -
ADDI,SUE              7329          FEMALE        53           +         -
ROSSALL,ELVIRA J      5827          FEMALE        53           +         -
HUOGH,INA             6914          FEMALE        48           +         -
OQOELLE,MARJORIE      17192         FEMALE        39           +         -
FLURAS,CLAUDIA F      5489          FEMALE        43           +         -
GETAS,LOIS A.         6417          FEMALE        42           +         -
ANRYQOAZ,ELSIE M      5199          FEMALE        54           +         -
LELU,VELVA L          5387          FEMALE        48           +         -
MURELAS,GLORIA        6657          FEMALE        41           +         -
CREYG,RACHEL FRA      6692          FEMALE        53           +         -
SCUTT,MARY            7516          FEMALE        40           +         -
MYLLAR,ANITA          5534          FEMALE        45           +         -
MYLLAR,ELLA MAE       6434          FEMALE        48           +         -
RYVES,MILDRED JO      10872         FEMALE        54           +         -
ANES,JOSEPHINE L      656           FEMALE        55           +         -
ESPE,LORETTA MAE      5223          FEMALE        44           +         -
SOMETZKOKO,RACHE      10373         FEMALE        38           +         -
```

LIST OF PATIENTS DUE FOR A BREAST EXAM

Software: QMAN
Menu Path: PCC, QMAN, SEARCH

This report lists female patients (18 and over) who have had a pap smear in the past month, but have NOT had a breast exam in the last year. These patients must live in the communities of the Service Unit catchment area.

Procedure

1) What is the subject of your search? LIVING PATIENTS //   **LIVING PATIENTS**

2) Attribute of PATIENT: **SEX**

   Select From:
   M Male
   F   Female

   Value: **F** FEMALE

3) Attribute of PATIENT: **PAP SMEAR**

    SUBQUERY: Analysis of multiple PAP SMEARS
    First condition of "PAP SMEAR": **SINCE**
    Exact date: **T-31**
    Next condition of "PAP SMEAR": **RETURN KEY**

4) Attribute of PATIENT: **BREAST EXAM**
    SUBQUERY: Analysis of multiple BREAST EXAMS
    First condition of "BREAST EXAM": **SINCE**
    Exact date: **T-365**
    Next condition of "BREAST EXAM": **NULL**

5) Attribute of PATIENT: **COMMUNITY**
    Enter COMMUNITY: **GILA BEND** (Enter communities specific to Service Unit
    Catchment Area)
    Enter ANOTHER COMMUNITY: **PHOENIX**
    Enter ANOTHER COMMUNITY: **PRESCOTT**
    Enter ANOTHER COMMUNITY: **RENO**
    Enter ANOTHER COMMUNITY: **RETURN KEY**

    Computing Search Efficiency Rating....
    Subject of search: PATIENTS
    SEX: FEMALE   [SER = 1.27]
    AGE GREATER THAN 18   [SER = .22]
    Subject of subquery: PAP SMEAR
    AFTER MAY 26,2000
    Subject of subquery: BREAST EXAM
    AFTER JUN 27,1999
    'NULL' (None meet criteria)
    CURRENT COMMUNITY (GILA BEND/PHOENIX...)   [SER = 11.5]

6) Attribute of PATIENT: **RETURN KEY**

    ***** Q-MAN OUTPUT OPTIONS *****

7) Select one of the following:

    1   DISPLAY results on the screen
    2   PRINT results on paper
    3   COUNT 'hits'
    4   STORE results of a search in a FM search template
    5   SAVE search logic for future use
    6   R-MAN special report generator
    9   HELP
    0   EXIT

    Your choice: DISPLAY//   **2** PRINT results on paper

8) DEVICE: **Enter Printer #**

Report Example

```
PATIENTS             PARKER      SEX       AGE      PAP      BREAST
(Alive)              NUMBER                                  EXAM
------------------------------------------------------------------------
SAACHUME,FRANCES     5027        FEMALE    45       +        -
ANES,CONSTANCE       5427        FEMALE    52       +        -
MENKEJE,FLORA        9060        FEMALE    41       +        -
CLEW,TERRY SUE       5359        FEMALE    78       +        -
QOYNUNAS,CLAUDIN     8438        FEMALE    37       +        -
LAYVES,CHARLOTTE     5418        FEMALE    80       +        -
CLAVALEND,GLADYS     741         FEMALE    45       +        -
FLURAS,GERTRUDE      13368       FEMALE    23       +        -
MC CUUK,KATHERIN     9992        FEMALE    32       +        -
CAPY,BELVA           10543       FEMALE    30       +        -
HULMAS,JOYCE RUT     6310        FEMALE    42       +        -
FARRYS,FLORA         14770       FEMALE    56       +        -
BRUWN,TRILBY D.      5774        FEMALE    55       +        -
ANES,ELLA MAE        11463       FEMALE    27       +        -
AVENS,INA            9754        FEMALE    32       +        -
ADDI,HOPE LEIVAS     8734        FEMALE    36       +        -
MEHKAWE,ALBERTA      9233        FEMALE    34       +        -
JUHNSUN,PAMELA C     5557        FEMALE    43       +        -
```

LIST OF POSSIBLE HYPERTENSIVE ELDERLY PATIENTS

Software: QMAN
Menu Path: PCC, QMAN, SEARCH

Patients (over age 60) with a systolic BP greater than 139 or diastolic BP greater than 89 recorded in a particular calendar year.

Procedure

1) What is the subject of your search? LIVING PATIENTS // **LIVING PATIENTS**

2) Attribute of LIVING PATIENTS: **BP**

    1   BP DIASTOLIC
    2   BP SYSTOLIC
    3   BP(systolic and diastolic)

    Select 1-3: **3**

    SUBQUERY: Analysis of multiple BPS

    1   First condition of "BP": **GREATER THAN**
        SYSTOLIC BP
        Value limiting condition for BP: GREATER THAN//
        Value: **139**

DIASTOLIC BP
Value limiting condition for BP: GREATER THAN//
Value: **89**

2   When I analyze the result =>
     a. Both systolic and diastolic BPs must meet your criteria
     b. Either systolic or diastolic BP must meet your criteria

     Your choice (1-2): 1// **2**

     c. Next condition of "BP": DURING THE TIME PERIOD
        Exact starting date: **1-1-99**
        Exact ending date: **12-31-99**

3) Attribute of LIVING PATIENTS: **AGE**
     Condition: **GREATER THAN**
     Age: **60**

     Subject of search: PATIENTS
     ALIVE TODAY [SER = .02]
     Subject of subquery: BP
     S>139 or D>89
     BETWEEN JAN 1,1999 and DEC 31,1999@23:59:59
     AGE GREATER THAN 60   [SER = 3.17]

4) Attribute of LIVING PATIENTS: **RETURN KEY**

     ***** Q-MAN OUTPUT OPTIONS *****

5) Select one of the following:

     1   DISPLAY results on the screen
     2   PRINT results on paper
     3   COUNT 'hits'
     4   STORE results of a search in a FM search template
     5   SAVE search logic for future use
     6   R-MAN special report generator
     9   HELP
     0   EXIT

     Your choice: DISPLAY **2** PRINT results on paper

6) DEVICE: **Enter Printer #**

7) You have 2 options for listing BPS =>

     1   For each patient, list all BPS which match your criteria
     2   List all PATIENTS with BPS meeting your criteria, but do not list the
        individual values of each BP.
     Your choice (1 or 2): 1// **RETURN KEY**

Report Example

```
PATIENTS          PARKER        BP         DATE OF BP      AGE
(Alive)           NUMBER
------------------------------------------------------------------
HUFFMEN,BEVERLY   16662         140/102    JAN 5,1999      86
HULMAS,CHARLES C  5204          166/94     JAN 6,1999      87
CHOJU,DORITA N    5052          140/102    NOV 2,1999      70
CHOJU,DORITA N    5052          166/94     JAN 6,1999      70
JOLYOS,JOSEPH     17095         166/94     JAN 6,1999      62
ADDI,HAROLD FRAN  6558          200/110    JAN 20,1999     66
LAYVES,CHARLOTTE  5418          140/80     AUG 3,1999      80
LAYVES,CHARLOTTE  5418          130/90     JAN 20,1999     80
BAGEI SR,ELLIS G  15599         180/100    JAN 20,1999     69
DEMO,FATHER       999234        200/110    AUG 31,1999     67
SCUTT SR.,HURLEY  5400          200/110    OCT 13,1999     75
SCUTT SR.,HURLEY  5400          220/150    APR 13,1999     75
GUUDMEN,TERESA    5050          155/120    APR 14,1999     84
SCUTT SR,CHANCE   5251          200/110    OCT 13,1999     65
SCUTT SR,CHANCE   5251          130/90     OCT 13,1999     65
SCUTT SR,CHANCE   5251          180/100    APR 15,1999     65
ANES,INA          268           170/116    MAY 11,1999     79
BAGEIA,LBERTA     16241         130/90     OCT 13,1999     63
```

LIST OF DIABETIC PATIENTS NOT RECENTLY SEEN IN DIABETIC CLINIC

Software: QMAN
Menu Path: PCC, QMAN, SEARCH

This report lists diabetic patients whose DM Diagnosis occurred before 1-1-2000, but who have not been seen in the Diabetic Clinic since 1-1-2000.

Procedure

1) What is the subject of your search? LIVING PATIENTS // **LIVING PATIENTS**

2) Attribute of LIVING PATIENTS: **DX**

   1 Enter DX: **250.00-250.93**
   2 Code Range(s) Selected So Far =>
      1) 250.00-250.93
   3 Enter ANOTHER DX: **RETURN KEY**

   SUBQUERY: Analysis of multiple DIAGNOSES

   1 First condition of "DIAGNOSIS": **BEFORE**
      Exact date: **1-1-2000**

   2 Next condition of "DIAGNOSIS": **RETURN KEY**

3) Attribute of LIVING PATIENTS: **VISIT**

SUBQUERY: Analysis of multiple VISITS

1   First condition of "VISIT": **SINCE**
     Exact date: **1-1-2000**

2   Next condition of "VISIT": **CLINIC**
     Enter CLINIC: **DIABETIC**
     enter ANOTHER CLINIC: **RETURN KEY**

3   Next condition of "VISIT": **NULL**

     Computing Search Efficiency Rating....
     Subject of search: PATIENTS
     ALIVE TODAY   [SER = .02]
     DIAGNOSIS (250.00) [SER = 24.37]
     Subject of subquery: DIAGNOSIS
     BEFORE JAN 1,2000
     Subject of subquery: VISIT
     AFTER JAN 1,2000
     CLINIC (DIABETIC)
     ' NULL' (None meet criteria)

4)   Attribute of LIVING PATIENTS: **RETURN KEY**

     ***** Q-MAN OUTPUT OPTIONS *****

5)   Select one of the following:

     1   DISPLAY results on the screen
     2   PRINT results on paper
     3   COUNT 'hits'
     4   STORE results of a search in a FM search template
     5   SAVE search logic for future use
     6   R-MAN special report generator
     9   HELP
     0   EXIT

     Your choice: DISPLAY// **2** PRINT result on paper

6)   DEVICE: **Enter Printer #**

Report Example

```
PATIENTS            PARKER          DX/ICD9       VISIT
(Alive)             NUMBER #
------------------------------------------------------------------
IDA,RUMARU*         123389           +             -
ANES,INA            6268             +             -
CLEOS,HUGH JORO*    999999           +             -
DAISYA,MARGARET     5861             +             -
ADDI,LEONARD        12267            +             -
SMITH,SARA          122345           +             -
VERGES,WANDA LEE    7808             +             -
ENTUNA,ROLAND       13242            +             -
ADMUNDS,MILDRED     16119            +             -
NUPEH,TIMOTHY H     5789             +             -
CHERLYA,LONA*       109876           +             -
FYSHAR,DAISY B      16520            +             -
VEN FLAAT,LORENZ    12666            +             -
DEMO,FATHER         999234           +             -
ADDI,ALBENA         6215             +             -
ADDI,HAROLD FRAN    6558             +             -
BAACHAR,ALDEN L     1598             +             -
```

LIST OPV IMMUNIZATIONS FOR CHILDREN

Software: QMAN
Menu Path: PCC, QMAN, SEARCH

This report lists all children (under 7 years of age) who have not had their 5th OPV
Immunization.

Procedure

1) What is the subject of your search? LIVING PATIENTS // **LIVING PATIENTS**

2) Attribute of LIVING PATIENTS: **AGE**
   Condition: **LESS THAN**
   Age: **7**

3) Attribute of LIVING PATIENTS: **OPV**

4) Select series (1-5, BOOSTER, COMPLETE, ALL, UNSPECIFIED): ALL// **5**

5) First condition of "OPV": **NULL**

   Computing Search Efficiency Rating…
   Subject of search: PATIENTS
   ALIVE TODAY   [SER = .02]
   AGE LESS THAN 7   [SER = 99]
   OPV: NONE EXIST   [SER = -.1]

6) Attribute of LIVING PATIENTS: **RETURN KEY**

***** Q-MAN OUTPUT OPTIONS *****

7) Select one of the following:

    1   DISPLAY results on the screen
    2   PRINT results on paper
    3   COUNT 'hits'
    4   STORE results of a search in a FM search template
    5   SAVE search logic for future use
    6   R-MAN special report generator
    9   HELP
    0   EXIT
    Your choice: DISPLAY// **2** PRINT results on paper

8) DEVICE: **Enter Printer #**

Report Example

```
PATIENTS              PARKER          AGE         IMMUNIZATION
(Alive)               NUMBER                      (SERIES)
-----------------------------------------------------------------------
GOMEZ-DEVINE          3383            6            -
SAM,JOHN             5677            6            -
MANSELL,JONES        6789            6            -
SMITH,DOE*           102030          6            -
SMITH,DOE            123098          6            -
MORITA,GAIL          9090            6            -
HENDRIS,CINCY        12394           6            -
SORMAN,ANIE          89098           6            -
ADAMS,COOL           8965            5            -
BEGAY,IDA*           1212            5            -
SAMUEL,ADAMS         4560            5            -
HANSEN,PAUL          101195          4            -
MAN,BAT*             808303          4            -
PEPSI,NICOLA AN      88888           3            -
```

LIST PATIENTS WITH SPECIFIC LAB TESTS

Software: QMAN
Menu Path: PCC, QMAN, SEARCH

This report lists all patients who had a weight greater than 250 lbs after 1-1-2000 and a Blood Sugar (Glucose) over 150 taken in the same time period.

Procedure

1) What is the subject of your search? LIVING PATIENTS // **LIVING PATIENTS**

2) Attribute of LIVING PATIENTS: **WT**

SUBQUERY: Analysis of multiple WEIGHTS
First condition of "WEIGHT": **GREATER THAN**
Value: **250**
Next condition of "WEIGHT": **SINCE**
Exact date**: 1-1-2000**

Next condition of "WEIGHT": **RETURN KEY**

3) Attribute of LIVING PATIENTS: **GLUCOSE**

SUBQUERY: Analysis of multiple RBCS
First condition of "RBC": **GREATER THAN**
Value: **150**
Next condition of "RBC": **SINCE**
Exact date: **1-1-2000**

Next condition of "RBC": **RETURN KEY**

Computing Search Efficiency Rating....
Subject of search: PATIENTS
ALIVE TODAY   [SER = .02]
Subject of subquery: WEIGHT(lbs)
GREATER THAN 250
AFTER JAN 1, 2000
Subject of subquery: RBC
GREATER THAN 150
AFTER JAN 1,2000

4) Attribute of LIVING PATIENTS: **RETURN KEY**

***** Q-MAN OUTPUT OPTIONS *****

5) Select one of the following:

1   DISPLAY results on the screen
2   PRINT results on paper
3   COUNT 'hits'
4   STORE results of a search in a FM search template
5   SAVE search logic for future use
6   R-MAN special report generator
9   HELP
0   EXIT

Your choice: DISPLAY// **2** PRINT result on paper

6) You have 3 options for listing RBC RESULTS =>

1   List every RESULTS meeting search criteria.
2   List every RESULTS and EXPANDED LAB REPORT meeting search
    criteria.

3   List all PATIENTS with RESULTS you specified, but DO NOT list individual RESULTS or EXPANDED LAB REPORT (FASTEST OPTION!!) (Displays UNDUPLICATED list of PATIENTS)

Your choice (1-3): 1// **RETURN KEY**

7) DEVICE: **Enter Printer #**

Report Example

```
PATIENTS              PARKER        RBC       RBC DATE        WT
(Alive)               NUMBER        M/cmm                     lbs
-------------------------------------------------------------------
BITSUIE,ELLA MA*      147258        194       JAN 7,2000       +
ADAMS,MARY            143040        200       FEB 2,2000       +
SMITH,JOHN            232455        160       MAR 15, 2000     +

Total :3
```

LIST PATIENTS WITH SPECIFIC DENTAL ADA CODES

Software: QMAN
Menu Path: PCC, QMAN, SEARCH

This report lists Diabetic patients who had a tooth extracted (7110, 7111, 7112) after 1-1-2000.

Procedure

1) What is the subject of your search? LIVING PATIENTS // **LIVING PATIENTS**

2) Attribute of LIVING PATIENTS: **DX**

Enter DX: **250.00-250.93**

Code Range(s) Selected So Far =>
1) 250.00 - 250.93
Enter ANOTHER DX: **RETURN KEY**
Want to save this DX group for future use? No// **RETURN KEY**
SUBQUERY: Analysis of multiple DIAGNOSES: **RETURN KEY**

3) Attribute of LIVING PATIENTS: **ADA CODE**

Enter ADA CODE: **7110**   EXTRACTION, SIMPLE (ANY REASON)
Enter ANOTHER ADA CODE: **7111**   EXTRACTION FOR CARIES-XC
Enter ANOTHER ADA CODE: **7112**   EXTRACTION FOR PERIO-XP
Enter ANOTHER ADA CODE: **RETURN KEY**

The following have been selected =>
7110
7111
7112

Want to save this ADA CODE group for future use? No// **RETURN KEY**

SUBQUERY: Analysis of multiple ADA CODES

First condition of "ADA CODE": **SINCE**
Exact date: **1-1-2000**
Next condition of "ADA CODE": **RETURN KEY**

Computing Search Efficiency Rating....
Subject of search: PATIENTS
ALIVE TODAY   [SER = .02]
DIAGNOSIS (250.01/250.11...) [SER = 15.23]
ADA CODE (7110/7111...) [SER = 12.38]
Subject of subquery: ADA CODE
AFTER JAN 1,2000

4) Attribute of LIVING PATIENTS: **RETURN KEY**

***** Q-MAN OUTPUT OPTIONS *****

5) Select one of the following:

    1 DISPLAY results on the screen
    2 PRINT results on paper
    3 COUNT 'hits'
    4 STORE results of a search in a FM search template
    5 SAVE search logic for future use
    6 R-MAN special report generator
    9 HELP
    0 EXIT

    Your choice: DISPLAY// **2** PRINT results on paper

6) You have 3 options for listing ADA CODES =>

    1 List every ADA CODES meeting search criteria.
    2 List every ADA CODES and SERVICE DESCRIPTIONS meeting search
       criteria.
    3 List all PATIENTS with ADA CODES you specified, but DO NOT list
       individual ADA CODES or SERVICE DESCRIPTIONS (FASTEST
       OPTION!!) (Displays UNDUPLICATED list of PATIENTS)

       Your choice (1-3): 1// **RETURN KEY**

7) DEVICE: **Enter Printer #**

Report Example

```
PATIENTS            PARKER         DX/ICD9    SERVICE    DATE OF SERVICE
(Alive)             NUMBER #                  ADA CODE
------------------------------------------------------------------------
AGLY,ELIZA          11147             +         7111       APR 1,2000
JYMYNAZ,EDITH RE    8383              +         7111       JAN 30,2000
FLURAS,FAITH P      9809              +         7111       APR 1,20009
GUUDMEN,BOB         16413             +         7110       APR 1,2000
LEGHORN,FOGHORN*    700004            +         7110       MAY 28,2000


Total: 5
```

LIST NEWLY DIAGNOSED DIABETIC PATIENTS

Software: QMAN
Menu Path: PCC, QMAN, SEARCH

This report lists all newly identified first time Diabetic patients with a diagnosis made since 1-1-2000.

Procedure

1) What is the subject of your search? LIVING PATIENTS //   **LIVING PATIENTS**

2) Attribute of LIVING PATIENTS: **DX**
   Code Range(s) Selected So Far =>
   1) 250.00

   1   Enter ANOTHER DX: **RETURN KEY**
   2   SUBQUERY: Analysis of multiple DIAGNOSES
   3   First condition of "DIAGNOSIS": **FIRST 1**
   4   Next condition of "DIAGNOSIS": **SINCE**
       Exact date: **1-1-2000**
   5   Next condition of "DIAGNOSIS": **RETURN KEY**

       Computing Search Efficiency Rating.....
       Subject of search: PATIENTS
       ALIVE TODAY   [SER = .02]
       DIAGNOSIS (250.00) [SER = 24.37]
       Subject of subquery: DIAGNOSIS
       FIRST 1
       AFTER JAN 1,2000

3) Attribute of LIVING PATIENTS: **RETURN KEY**

   ***** Q-MAN OUTPUT OPTIONS *****

4) Select one of the following:

1   DISPLAY results on the screen
2   PRINT results on paper
3   COUNT 'hits'
4   STORE results of a search in a FM search template
5   SAVE search logic for future use
6   R-MAN special report generator
9   HELP
0   EXIT

Your choice: DISPLAY// **2** PRINT results on paper

5) You have 3 options for listing DIAGNOSES =>

1   List every DIAGNOSIS meeting search criteria.
2   List every DIAGNOSIS and PROVIDER NARRATIVES meeting search criteria.
3   List all PATIENTS with DIAGNOSIS you specified, but DO NOT list
     individual ICD9 CODES or PROVIDER NARRATIVES (FASTEST
     OPTION!!) (Displays UNDUPLICATED list of PATIENTS)

6) Your choice (1-3): 1// **RETURN KEY**

7) DEVICE: **Enter Printer #**

Report Example

PATIENTS (Alive)	PARKER NUMBER	FIRST DX/ICD9	DATE OF POV
GERCYE JR,RUDOLP	13685	250.00	JAN 4,2000
EAGLE,DAVE	547	250.00	JAN 14,2000
ADAMS,COOL	8965	250.00	JAN 20,2000
EDDY,NICOLE*	27678	250.00	FEB 4,2000
DYEZ,BARTHOLOMEW	17200	250.00	FEB 20,2000

Chapter 12
Other Resources

Copies of the worksheets contained in this manual can be obtained from the IHPES web page. Several automated worksheets created in Microsoft Excel format may also be down loaded from the IHPES web site. This can be accessed through the IHS web site under "National Programs & Initiatives".

A copy of this manual may also be downloaded from the IHPES web page.